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# United States Patent [19]

Kweon

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[54] METHOD FOR MANUFACTURING A LIQUID CRYSTAL DISPLAY

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[57] ABSTRACT

A method for manufacturing a liquid crystal display which reduces the number of photolithography processes is provided. The method includes the steps of forming a gate electrode and a gate pad by depositing a first metal film and a second metal film on a substrate of a TFT area and a gate-pad connecting area, respectively, in the described order, by a first photolithography process, forming an insulating film on the entire surface of the substrate on which the gate electrode and the gate pad are formed, forming a semiconductor film pattern on the insulating film of the TFT area by a second photolithography process, forming a source electrode/drain electrode and pad electrode composed of a third metal film using a third photolithography process in the TFT portion and pad portion, respectively, forming a passivation film pattern which exposes a portion of the drain electrode, a portion of the gate pad, and a portion of the pad electrode by a fourth photolithography process, exposing the first metal film by etching the second metal film which constitutes the gate pad using the passivation film pattern as a mask, and forming a pixel electrode connected to the drain electrode of the TFT area for connecting the gate pad of the gate-pad connecting area to the pad electrode of the pad area using a fifth photolithography process. Therefore, it is possible to reduce the number of photolithography processes, to improve the manufacturing yield, and to suppress growth of a hillock of an Al film.

15 Claims, 8 Drawing Sheets